

Strengths & Weaknesses of Species-Based Conservation

4.3.5 Discuss and evaluate the strengths and weaknesses of the species-based approach to conservation.

→ Captive Breeding & Reintroduction - **Breeding in captivity & then releasing back into the wild.**

Strengths	Weaknesses
<ul style="list-style-type: none"> - Some reintroductions wk. great (CA condors, Przewalski's horses in Mongolia) - Programs can bring local people together ↓ also jobs 	<ul style="list-style-type: none"> - hardly ever successful reintroductions - Some waste \$ or are unethical. - Reintroduced org. can't always make it on their own → need extra food / care - org. get used to people - rare plants → dug up, outcompeted or eaten - focus on Big animals & plants - Requires good habitat for reintroduction - Some local people don't want reintroduction (tigers, wolves, etc) - Some org. can't deal w/ change of scene → keep going "home"

→ Zoos & Aquariums

Strengths	Weaknesses
<ul style="list-style-type: none">- can keep spp. from becoming extinct.- good zoos keep their animals very well.- educational centers- breeding programs w/ other zoos → try to improve gene pool.- good option if habitat is gone or being degraded.	<ul style="list-style-type: none">- Can't keep every spp. this way.- must breed them → ↓ genetic diversity- small spaces/cages & sometimes not treated well.- Focus on Big animals bc that's what people want to see. (ignores insects, worms, etc.)

→ Botanical Gardens

↑
plant zoo

Strengths	Weaknesses
<ul style="list-style-type: none">- Some have seed banks- they grow rare plants in controlled conditions- Centers for research & education.- Don't have to worry about plants being dug up or trampled	<ul style="list-style-type: none">- Since plants are in the same place there is ↑ risk of disease & pest problems.- ↓ genetic diversity

→ Seed Banks - seed banks stored dry & frozen

Strengths	Weaknesses
<ul style="list-style-type: none">- gene banks on seeds → preserve genetic variation for the future. <p>↳ Most of today's crops are only from a few varieties.</p>	<ul style="list-style-type: none">- Who owns the seeds? International or Domestic?- High technology to maintain them.- all in one place- over time seeds lose viability (ability to germinate & grow)

→ CITES (Convention on International Trade in Endangered Species)

- International agreement but govts. set up to protect orgs. becoming extinct due to international trade.
- Countries voluntarily sign & then make their own laws.

↳ Appendix I - spp. can't be traded (nearly extinct)
Appendix II - can be traded but regulated

Appendix III - spp. Requested by countries

Trade shouldn't threaten organisms!

Strengths	Weaknesses
<ul style="list-style-type: none">- Voluntary measure- Protects 5000 animals & 28,000 plants- Reduced trade in endangered spp. (live animals or animal parts)<ul style="list-style-type: none">↳ elephant tusks, etc.- can cover whole groups <u>OR</u> smaller populations	<ul style="list-style-type: none">- Voluntary so not all countries participate- Countries still have to make & support their own laws.- focus on larger species